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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,968	01/31/2001	Marwan Zebian	J1-2-98121-B-US	6029
33356	7590	09/08/2004	EXAMINER	
SOCAL IP LAW GROUP 310 N. WESTLAKE BLVD. STE 120 WESTLAKE VILLAGE, CA 91362			PATEL, ASHOKKUMAR B	
			ART UNIT	PAPER NUMBER
			2154	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/774,968	ZEBIAN, MARWAN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ashok B. Patel	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 6/25/04.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-40 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) \_\_\_\_\_ is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1-40 are subject to examination.

### ***Response to Arguments***

2. Applicant's arguments filed June 25, 2004 have been fully considered but they are not persuasive for the following reasons:

#### ***Claim Rejections – 35 USC § 102:***

- a. The Applicant's assertion that " In this rejection, the Office Action addresses each limitation included in claims by listing what the Examiner believes to be corresponding elements from West." Is correct and Examiner agrees with it, however Applicant's arguments that "Office Action fails to state the interrelationship and interaction of the elements as recited in the claims. The Office Action fails to explain where West teach any of the method steps recited in the claims. What the office action does is describe a list of part, but fails to explain how they should be put together to create a system that performs a method. The parts remain separate and are not connected in any way in the arguments presented in the Office Action." are not only completely illogical, but also irrational since they raise a question: Why these examiner pointed out elements are there at where they are in the reference?

The responses to arguments provided below are intended to merely enhance the teachings of the reference West, and by no means the responses are intended to change the ground of rejection as Examiner is aware of the requirements under 35 USC § 102(e).

**Referring to claim 1,**

In response to arguments "However, the Examiner fails to assert or show "a user network access number (NAN) list, the user NAN list comprising plural NANs, the NANs for use by a user's client device in connecting to a data network under control of a server system" as recited in claim 1. More specifically, the Examiner fails to show "the NANs for use by a user's client device in connecting to a data network "and "a data network under control of a server system." as recited in claim 1. That is, even though in arguendo West may teach a "NAN list", a "client device", and a "data network", the Examiner has failed to assert how West teaches "NANs for use by a user's client device in connecting to a data network." Even though West may in arguendo teach a "data network" and a "server system", the Examiner has failed to assert that West teaches "a data network under control of a server system.", the reference teaches these elements as recited in claim 1, by teaching the "Management Server" of Fig. 3, element 334, Fig.4, element 334 and Fig.7 showing the details. The one of the functions of this management server, along with many other as described in the reference, is "Service providers that execute on management server 334 include an access service provider 720. Access service provider 720 accesses a master client database 722 and corporate database 774. Access modules, such as access 712, access 622 on tunnel server 332, or access 550 on remote computer 100, communicate with access service provider 720 in order to retrieve data in master client database 722 and to store and retrieve data in corporate database 774. Master client database 722 includes data needed to select a lowest cost

connection path from a remote computer 100."(col.11, lines 38-47) and "A second database on management server 334, corporate database 774, includes information specific to the corporation. Corporate-specific information related to the dialing tables includes ISP and POP information that is not part of POP information 1312. For instance, a corporation may use a regional ISP that is not represented in POP information 1312. Also, telephone access numbers for remote access servers operated by the corporation are not included in distribution database 772 and are included in corporate database 774. Also, pricing information for various ISPs may be included in corporate database 774, for example, if the corporation has a special access price not reflected in POP information 1312. (col.17, lines 20-32).

In response to Applicant's arguments that "However, this cited portion of West fails to mention element 100 of Fig. 1 that the Office Action asserts teaches the client device and element 340 of Fig. 4 that the Office Action asserts teaches the data network. The Office Action fails to explain how element 100 of Fig. 1 and element 340 of Fig. 4 are connected in any way with the text at col. 3, lines 35-45.", the reference teaches these claimed elements by teaching "Establishing a connection path between remote computer 100 (client device) and local computer 110 (which is located in the LAN data network) can involve several steps associated with establishing different segments of the path. FIG. 3 shows a representative communication path such as might be established between remote computer 100 and local computer 110. The path uses a dialed telephone connection from remote computer 100 to an Internet POP 320 and an Internet-

based connection from POP 320 to local computer 110. The communication path includes several physical segments."(col.7, lines 24-33).

In response to Applicant's arguments ". However, the Office Action fails in each and every instance to put the puzzle of the pieces' together by failing to show how the pieces, if in arguendo they are taught by West, are used in conjunction with one another to achieve the recited claims. As such, the Office Action fails to show where West teaches each and every method step recited in the claims. We hereby request that the June Office Action be re-issued to include arguments asserting not just that the "parts" recited in the claims are arguably taught by West, but how every aspect recited in claims 1-11 is taught by West, particularly the method steps.", the reference explains in details the method steps associated with these elements in col. 4, lines 55 thru col.17, lines 54).

In response to the Applicant's arguments that "Although West mentions "a dialing database which includes telephone numbers" at col. 3, lines 1-4, this portion of West cited in the Office Action fails to teach "setting the NANs in the user NAN list. based upon the available NAN list." 'The Office Action also fails to explain what in West corresponds to the "available NAN list" and the "user NAN list." Further, although West mentions "determining a set of access paths at col. 2, lines 58-63, this portion of West fails to teach "setting an order for selecting the NANs in the user NAN list based upon the connection information, wherein the order is set outside of the user's control" as recited in claim 1. 'that is, "determining a set" does not teach "setting an order" as claimed. Grouping such as "determining a set" does not teach or imply ordering. As such, the Office

Action fails to show where West teaches the claimed limitation.", the reference teaches these elements by teaching" In response to a request from access 550 (FIG. 5) executing on remote computer 100, access service provider 720 sends relevant portions of master client database 722 or corporate database 774 to the remote computer. Access 550 stores those received portions in local database 552 on remote computer 100. Access 550 requests data in order of potential importance to a user to remote computer 100. (teach "setting the NANs in the user NAN list. based upon the available NAN list." 'The Office Action also fails to explain what in West corresponds to the "available NAN list" and the "user NAN list.") For example, dialing information for the current location the remote computer is calling from is more important than information for other locations. Locations that have been visited recently are more important than locations that are rarely visited. In this way, although the whole master client database may not be updated, the parts most likely to be useful to a user are requested. ('that is, "determining a set" does not teach "setting an order" as claimed. Grouping such as "determining a set" does not teach or imply ordering.) Also, if a connection is terminated while data is being transferred to access 550, the transfer is restarted the next time a connection is established."(col.17, lines 39-54).

**Referring to claim 2,**

In response to Applicant's argument that "However, the cited portion of West merely states that performance related logging information is accepted from remote computers and performance related cost factors are updated. In this cited

portion of West, there is no mention of "associating ranking information with at least one NAN" as claimed. As such, the Office Action fails to show where West teaches the claimed limitation.", the reference teaches the claimed elements by teaching "The list is sorted so that the first entry in the list is the path preferred by the connection software. Preference is based on a calculated cost for each of the paths, including both monetary and performance related factors."(col. 6, lines 44-48).

**Referring to claim 4,**

In response to Applicant's argument that "However, the actions performed in this portion of West describe a list sorted by cost derived from monetary and performance factors. (West, col. 6, lines 37-64). Such a sorted list is not the same as and fails to teach "providing a sequence list which identifies the order" as claimed. As such, the Office Action fails to show where West teaches the claimed limitation.", the reference teaches the claimed elements by teaching "The list is sorted so that the first entry in the list is the path preferred by the connection software. Preference is based on a calculated cost for each of the paths, including both monetary and performance related factors." ("providing a sequence list which identifies the order")(col. 6, lines 44-48).

**Referring to claim 5,**

In response to Applicant's argument that "There is no teaching in this portion of West of "providing the client device with connection information for the NANs in the user NAN list and an algorithm for selecting the NANs based on the provided connection information." As such, the Office Action fails to show where West

teaches the claimed limitations.", the reference teaches the claimed invention in col. 5, line 57 thru col. 7, line 23)

**Referring to claim 6,**

In response to Applicant's argument that "The Office Action fails to show where West teaches the "plural backend networks", the "plural backend providers", the association between the plural backend networks and the plural backend providers, "a cost from the back end provider for the client device to utilize the back end network of the back end provider" (col.2, lines 39-57, teaches the cost function), and "the back end providers permit a connection through their back end networks to the client device under the authorization of the server system."

As such, the Office Action fails; to show where West teaches each and every aspect of the claimed limitations.", and "Further, the Office Action confusingly states that element 140 corresponds to the "plural back end networks" and the "back end providers" of claim 6 and the "server system" of claim 1. Clarification is hereby requested.", the reference teaches" establishment of the connection between the remote computer and local computer through back end providers and back end networks as shown in Fig.3 and Fig.4 as well as described in col.8, lines 10-67 and col. 9, lines 1-23, is explained below. In Fig.3, the first connection is between Remote computer and PSTN, the second connection is between PSTN and POP (POP under the control of back end providers such as internet), and third connection is between POP and Corporate LAN (plural back end networks wherein the corporate LAN can have many computers like local computer). As stated by the reference the path of connection can be many as

stated in col.2, lines 15-37. The reference also teaches of establishing a raw connection first under the authorization of the server system in POP as stated in col.8, lines 19-28.and finally at the Management server 334 as stated in the previous office action.

**Referring to claim 7,**

In response to Applicant's arguments that "Regarding claim 7, the Examiner asserts that col, 2, lines 58-63 of West teach, "determining an available local NAN list based upon the location of the client device and the location information for the NANs in the available NAN list." However, review of this portion of West reveals that mention is only made of the location of a remote computer. In this portion of West, no mention is made of "the location of the NANs in the available NAN list." The telephone list discussed at this portion of West describes telephone access charges associated with dialed telephone channels, and fails to mention the location of telephone numbers. As such, the Office Action fails to show where West teaches each and every aspect of the claimed limitations.", and "Continuing with regard to claim 7, the Examiner asserts that col, 6, lines 37-58 of West teach "comparing the available local NAN list with the user NAN list to identify a good NAN in the available local NAN list which is not in the user NAN list." However, this portion of West fails to teach an "available local NAN list" and a "user NAN list" as claimed. In addition, there is no teaching of the limitation "to identify a good NAN in the available local NAN list which is not in the user NAN list." As such, the Office Action fails to show where West teaches each and every aspect of the claimed limitations.", with keeping in mind the teachings

of the reference as stated above, the reference also teaches the claimed elements by teaching " Local database 552 (FIG. 5) also contains information about user groups, including the user group to which a user of the remote computer belongs. That user group has, in general, its own set of weighting coefficients for combining the various monetary and performance factors to compute a single overall cost for a connection. A first pair of weights is used to combine the POP factors and the ISP factors. For example, selection of connection paths for a user group may put more weight on ISP factors than POP factors. A second set of weights for that user group is associated with the set of monetary and performance factors, with one weight being associated with each factor. These factors are used to multiply and sum the monetary and performance factors to compute an overall total cost of a connection. Local database 552 also includes information that provides the Internet hostname or IP address of tunnel servers used to connect to particular destinations. The "calling to" field provided by the user is used to determine whether a tunnel server is needed, and, if one is needed, the one or more tunnel servers that can provide access to the "calling to" destination. Associated with each tunnel server is access information including information used to determine the type of tunnel connection that should be established, such as the tunnel protocol, and various encryption and compression options."(col.16, lines 33-44)(“determining an available local NAN list based upon the location of the client device and the location information for the NANs in the available NAN list.” And “to identify a good NAN in the available local NAN list which is not in the user NAN list.”)

**Referring to claim 9,**

In response to Applicant's arguments that "Reordering a list and selecting a path from a list as taught in this portion of West are not the same as and do not teach "asking the user for permission to add the good NAN to the user NAN list" as recited in the claim. As such, the Office Action fails to show where West teaches the claimed limitation.", the reference teaches, as stated previously, "a user is given right to indicate a path that is not the lowest cost path in his preferred choice" (col. 6, lines 51-55), thereby the reference teaches "asking the user for permission to add the good NAN to the user NAN list" as recited in the claim.

**Referring to claims 10 and 11,**

In response to Applicant's arguments that "the cited portions of West fail to teach "comparing the available local NAN list with the user NAN list to identify a bad NAN in the user NAN list which is not in the available local NAN list" and "deleting the bad NAN from the user NAN list." Further, the reference to col. 14, lines 45-52 of West appears to tie misplaced and inapplicable to this claim. As such, the Office Action fails to show where West teaches the claimed limitations.", with keeping in mind the teachings of the reference as stated above, the reference also teaches the claimed elements by teaching " Local database 552 (FIG. 5) also contains information about user groups, including the user group to which a user of the remote computer belongs. That user group has, in general, its own set of weighting coefficients for combining the various monetary and performance factors to compute a single overall cost for a connection. A first pair of weights is used to combine the POP factors and the ISP factors. For

example, selection of connection paths for a user group may put more weight on ISP factors than POP factors. A second set of weights for that user group is associated with the set of monetary and performance factors, with one weight being associated with each factor. These factors are used to multiply and sum the monetary and performance factors to compute an overall total cost of a connection. Local database 552 also includes information that provides the Internet hostname or IP address of tunnel servers used to connect to particular destinations. The "calling to" field provided by the user is used to determine whether a tunnel server is needed, and, if one is needed, the one or more tunnel servers that can provide access to the "calling to" destination. Associated with each tunnel server is access information including information used to determine the type of tunnel connection that should be established, such as the tunnel protocol, and various encryption and compression options."(col.16, lines 33-44)(“determining an available local NAN list based upon the location of the client device and the location information for the NANs in the available NAN list.” And “to identify a good NAN in the available local NAN list which is not in the user NAN list.”), The reference teaches, as stated previously, “a user is given right to indicate a path that is not the lowest cost path in his preferred choice” (col. 6, lines 51-55), thereby the reference teaches ““deleting the bad NAN from the user NAN list.” as recited in the claim.

***Claim Rejections - 35 USC § 103:*****Referring to claims 12-40,**

As stated by the Applicant that the claims 12-40 include limitations like those in claims 1-11, therefore responses to the arguments stated above for claims 1-11 are applicable to these claims as well.

**Claim Rejections - 35 USC § 102**

3. The following is a quotation of the appropriate paragraphs of 35U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by West et al. (hereinafter West)(US 6,081,508).

**Referring to claim 1,**

The reference teaches a method for maximizing qualities of a user network access number (NAN) list, the user NAN list comprising plural NANs (col.2, lines 20-23), the NANs for use by a user's client device (Fig.1, element 100) in connecting to a data network (Fig.4, element 340, LAN) under control of a server system (Fig.1, element 140, corporate communication system incorporating management server, Fig.4, element 334), the method comprising:

storing in the server system an available NAN list of NANs available for the client device (Fig.1, element 100) to connect to the data network(Fig.4, element 340, LAN), wherein the user NAN list comprises a subset of the available NAN list (col. 3, lines 35-45, Fig.4, element 334).

storing in the server system (Fig.1, element 140, corporate communication system incorporating management server, Fig.4, element 334) connection information about connecting from the NANs in the available NAN list to the data network(col. 3, lines 35-45, Fig.4, element 334, col.3, lines 5-7, "the set of access paths for communicating" (connection information)).

connecting the client device (Fig.1, element 100) to the server system (Fig.1, element 140, corporate communication system incorporating management server, Fig.4, element 334)

setting the NANs in the user NAN list based upon the available NAN list (col.3, lines 1-4).

setting an order for selecting the NANs in the user NAN list based upon the connection information, wherein the order is set outside of the user's control (col.2, lines 58-63, "set of access paths" (connection information)).

disconnecting the client device (Fig.1, element 100) from the server system(Fig.1, element 140, corporate communication system incorporating management server, Fig.4, element 334)

**Referring to claim 2,**

The reference teaches the method for maximizing qualities of a user NAN list of claim 1 wherein the order setting step comprises associating ranking information with at least one NAN in the user NAN list. (col.3, lines 55-58, col. 6, lines 44-47).

**Referring to claims 3 and 4,**

The reference teaches the method for maximizing qualities of a user NAN list of claim 1 wherein the order setting step comprises specifying an actual sequential order of the NANs in the user NAN list and the method for maximizing qualities of a user NAN list of claim 1 wherein the order setting step comprises providing a sequence list which identifies the order for using the NANs in the user NAN list. (col.6, lines 37-64).

**Referring to claim 5,**

The reference teaches the method for maximizing qualities of a user NAN list of claim 1 wherein the order setting step comprises providing the client device with connection information for the NANs in the user NAN list and an algorithm for selecting the NANs based upon the provided connection information. (col.6, lines 37-64).

**Referring to claim 6,**

The reference teaches the method for maximizing qualities of a user NAN list of claim 1 wherein

the NANs are for providing the client device (col.2, lines 31-36) with a connection to the data network (Fig.3, element 340, "LAN") through plural back end networks (Fig.3, element 140)

each NAN is associated with a one of plural back end providers, each back end network is associated with one of the back end providers (Fig.3, elements 140 and 340)

the connection information includes a cost from the back end provider for the client device to utilize the back end network of the back end provider (col.2, lines 31-36)

the back end providers permit a connection through their back end networks to the client device under the authorization of the server system. (Fig. 3, element 334, "management Server", element 330)

**Referring to claim 7,**

The reference teaches the method for maximizing qualities of a user NAN list of claim 1 wherein the connection information includes location information for the NANs in the available NAN list, the method further comprising

determining a location of the client device, determining an available local NAN list based upon the location of the client device and the location information for the NANs in the available NAN list (col.2, lines 58-63),

comparing the available local NAN list with the user NAN list to identify a good NAN in the available local NAN list which is not in the user NAN list, adding the good NAN to the user NAN list. (col.6, lines 37-58).

**Referring to claim 8,**

The reference teaches the method for maximizing qualities of a user NAN list of claim 7, wherein the location information for the NANs in the available NAN list comprises an area code. (Fig. 12, col. 14, lines 53-63).

**Referring to claim 9,**

The reference teaches the method for maximizing qualities of a user NAN list of claim 7, wherein before adding the good NAN to the user NAN list, asking the user for permission to add the good NAN to the user NAN list. (Fig. 2C, col. 6, lines 37-58).

**Referring to claim 10,**

The reference teaches the method for maximizing qualities of a user NAN list of claim 7, further comprising

comparing the available local NAN list with the user NAN list to identify, a bad NAN in the user NAN list which is not in the available local NAN list, deleting the bad NAN from the user NAN list. (Fig. 5, element 550, col. 14, lines 45-52, col.6, lines 37-58).

**Referring to claim 11,**

The method for maximizing qualities of a user NAN list of claim 10, wherein before deleting the bad NAN from the user NAN list, asking the user for permission to delete the bad NAN from the user NAN list. (Fig. 2C, col. 6, lines 37-58).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was

made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over West et al. (hereinafter West)(US 6,081,508) in view of Dieterman et al. (hereinafter Dieterman)(Pub. No. US 2002/0013896).

**Referring to claim 12,**

As stated above, the reference West teaches a method of setting an order for using network access numbers (NANs) in a user NAN list, the user NAN list comprising plural NANs (col.2, lines 58-63, "set of access paths"), the NANs for use by the user's client device (Fig.1, element 100) in connecting to a data network (Fig.4, element 340, LAN) under control of a server system (Fig.1, element 140, corporate communication system incorporating management server, Fig.4, element 334), wherein a connection from the client device to the data network comprises a front end portion (Fig.3, connection between modem 310 and PSTN 120) and a back end portion (Fig.3, connection between and POP), the front end portion comprising a first connection from the client device to a public switch (Fig.3, connection between modem 310 and PSTN 120), and the back end portion comprising a second connection from the public switch to a point of presence (Fig.3, connection between and POP) under control of one of plural back end providers (Fig.3, element 140, corporate communication system LAN) plus a third connection from the point of presence to the data network (Fig.3, connection between POP and corporate communication system LAN), wherein authorization for the back end provider to establish the back end portion

is by the server system (Fig. 3, element 334, "management Server", element 330) and each NAN is associated with one of the back end providers (col.3, lines 35-45), the method comprising

storing in the server system an available NAN list of NANs available for the user's client device (Fig.1, element 100) to connect to the data network(Fig.4, element 340, LAN),, wherein the user NAN list comprises a subset of the available NAN list (col.3, lines 35-45, Fig.4,element 334)

storing in the server system connection information for connecting from the NANs in the available NAN list to the data network, the connection information comprising at least one of (a) quality of connection information for the back end portion and (b) costs information for the back end portion ( col.6, lines 46-48)

establishing a connection from the client device (Fig.1, element 100) to the server system(Fig.1, element 140, corporate communication system incorporating management server, Fig.4, element 334)

transmitting an identification of the NANs in the user NAN list from the client device to the server system (Figs 2a-2c)

setting an order for selecting the NANs in the user NAN list based upon at least one of (a) the stored quality of connection information for the back end portion and (b) costs information for the back end portion. (col.6, lines 37-58).

The reference fails to teach the server as being the online service provider server. The reference Dieterman teaches the invention that involves the automatic determination and setting of preferred service provider telephone

access numbers and client configurations when the client connects to the service provider. Preferred access numbers can be determined on the bases of geographic location, POP usage charge (cost), and residual connection capacity (performance) (page 2, [0018]). Therefore, it would have been obvious for one in ordinary skill in the art at the time the invention was made to apply and practice the system of West into the system of Dieterman such that the same information is provided to the users of Dieterman's online service provider as it is being provided to the users of the West's system. It provides the solution to the problem stated by West "as a user of a remote typically has a choice of multiple access methods and telephone numbers using which the user can connect his remote computer to a local computer or a local area network. The remote user often user faces several problems. These problems include first knowing what numbers and access methods the user has a choice of, and knowing the cost of using those numbers and access methods. This first problem is exasperated by a large number of available access points, changes of access telephone numbers, changes in telephone and network access rates, and changes in quality of service provided by various service providers. Distributing, storing, and searching a comprehensive directory of access numbers and associated costs would, in general, be prohibitive on remote computers with limited storage and computation capacity, such as portable computers typically often used by mobile workers. (Abstract).

**Referring to claims 13 and 14,**

Keeping in mind the teachings of the reference West as stated above, although the reference teaches to update the database of the remote computer (col.23, lines 19-26), the reference fails to teach updating being done by the online service provider server system. The reference Dieterman teaches "the method for automatically updating network configuration settings includes the steps of: having the client computer dial a telephone number assigned to an internet service provider toward establishing a communication link between the client computer and the internet service provider computer via the client computer modem; having the internet service provider determine the optimal configuration settings (identifying a current version of the user NAN list, and the transmitting step comprises transmitting the version code from the client device to the online service provider server system and wherein the transmitting step comprises transmitting the user NAN list from the client device to the online service provider server system.); transmitting the optimal configuration settings from the internet service provider to the client computer; and storing the new configuration settings in the client computer."(page 2, [0019]). Therefore, it would have been obvious for one in ordinary skill in the art at the time the invention was made to apply and practice the system of West into the system of Dieterman such that the same information is provided to the users of Dieterman's online service provider as it is being provided to the users of the West's system. It provides the solution to the problem stated by West "as a user of a remote typically has a choice of multiple access methods and telephone numbers using which the user can connect his remote computer to a local computer or a local area network. The remote user

often user faces several problems. These problems include first knowing what numbers and access methods the user has a choice of, and knowing the cost of using those numbers and access methods. This first problem is exasperated by a large number of available access points, changes of access telephone numbers, changes in telephone and network access rates, and changes in quality of service provided by various service providers. Distributing, storing, and searching a comprehensive directory of access numbers and associated costs would, in general, be prohibitive on remote computers with limited storage and computation capacity, such as portable computers typically often used by mobile workers. (Abstract).

**Referring to claim 15,**

The reference West teaches the method of ordering a user's network access number NAN list as set forth in claim 12 wherein the step of ordering is performed by the client device (col.6, lines 51-55).

**Referring to claim 16,**

The reference West teaches the method of ordering a user's network access number NAN list as set forth in claim 12 wherein the step of ordering is performed by the online service provider server system. (col.6, lines 44-48).

**Referring to claim 17,**

The reference West teaches the method of ordering a user's network access number NAN list as set forth in claim 12, the order setting step comprising setting the order for selecting the NANs in the user NAN list based upon both the stored

quality of connection information (performance) and the stored costs information.

(col.6, lines 44-48).

**Referring to claims 18 and 19,**

The reference West teaches the method of ordering a user's network access number NAN list as set forth in claim 17, wherein the connection information includes an identification of a back end provider and the method of ordering a user's network access number NAN list as set forth in claim 12 wherein the available NAN list identifies a central office which serves each NAN, and the cost information for each NAN includes a cost of providing a connection from the respective central office to the data network. (Fig. 12, 14, 15, and 16, col. 17, lines 55-67 and col. 18, lines 1-67 and col.19, lines 1-7).

**Referring to claim 20,**

The reference West teaches the method of ordering a user's network access number NAN list as set forth in claim 12, wherein the stored quality of connection information (performance) comprises reliability data derived from historical quality-of-connection statistics associated with the NANs.(col.3, lines 55-58).

**Referring to claim 21,**

The reference West teaches the method of ordering a user's network access number NAN list as set forth in claim 20. further including the client device (remote computer) providing the online service provider server system with quality of connection information, and the online service provider server system incorporating the quality of connection information from the client device into the historical quality-of-connection statistics. .(col.3, lines 55-58).

**Referring to claim 22,**

The reference West teaches the method of ordering a user's network access number NAN list as set forth in claim 12 wherein the order setting step comprises associating ranking information with at least one NAN in the user NAN list. .(col.3, lines 55-58, col. 6, lines 44-47).

**Referring to claims 23 and 24,**

The reference West teaches the method of ordering a user's network access number NAN list as set forth in claim 12 wherein the order setting step comprises specifying an actual sequential order of the NANs in the user NAN list and the method of ordering a user's network access number NAN list as set forth in claim 12 wherein the order setting step comprises providing a sequence list which identifies the order for using the NANs in the user NAN list. (col.6, lines 37-64).

**Referring to claim 25,**

The reference West teaches the method of ordering a user's network access number NAN list as set forth in claim 12 wherein the order setting step comprises providing the client device with connection information for the NANs in the user NAN list and an algorithm for selecting the NANs based upon the provided connection information. (col.6, lines 37-67 and col.7, lines 1-5).

**Referring to claim 26,**

The reference West teaches the method of connecting from a client device (Fig.1, element 100) to a data network (Fig.4, element 340, LAN) under control of a server (Fig.3, element 140 incorporating Management Server, element 334) , wherein a connection from the client device to the data network comprises a front

end portion (Fig.3, connection between modem 310 and PSTN 120) and a back end portion(Fig.3, connection between and POP), the front end portion comprising a first connection from the client device to a public switch(Fig.3, connection between modem 310 and PSTN 120), and the back end portion comprising a second connection from the public switch to a point of presence(Fig.3, connection between and POP) under control of one of plural back end providers (Fig.3, element 140, corporate communication system LAN) plus a third connection from the point of presence to the data network( Fig.3, connection between POP and corporate communication system LAN), wherein authorization of the back end portion is by the online service provider server system(Fig. 3, element 334, "management Server", element 330), and each NAN is associated with one of the back end providers(col.3, lines 35-45), the method comprising

storing a user network access number (NAN) list in the client device (Fig.5, element 552,"local database")

sequentially dialing NANs from the user NAN list based upon an order of selection until the front end portion is established and the back end portion is authorized wherein the order is based upon the cost of the back end portion and historical quality of connection statistics for the back end. (Fig.2a-Fig. 2c, col. 5, lines 57-67 and col.6, lines 1-58). The reference fails to teach the server as being the online service provider server. The reference Dieterman teaches the invention that involves the automatic determination and setting of preferred service provider telephone access numbers and client configurations when the

client connects to the service provider. Preferred access numbers can be determined on the bases of geographic location, POP usage charge (cost), and residual connection capacity (performance) (page 2, [0018]). Therefore, it would have been obvious for one in ordinary skill in the art at the time the invention was made to apply and practice the system of West into the system of Dieterman such that the same information is provided to the users of Dieterman's online service provider as it is being provided to the users of the West's system. It provides the solution to the problem stated by West "as a user of a remote typically has a choice of multiple access methods and telephone numbers using which the user can connect his remote computer to a local computer or a local area network. The remote user often user faces several problems. These problems include first knowing what numbers and access methods the user has a choice of, and knowing the cost of using those numbers and access methods. This first problem is exasperated by a large number of available access points, changes of access telephone numbers, changes in telephone and network access rates, and changes in quality of service provided by various service providers. Distributing, storing, and searching a comprehensive directory of access numbers and associated costs would, in general, be prohibitive on remote computers with limited storage and computation capacity, such as portable computers typically often used by mobile workers. (Abstract).

**Referring to claims 27 and 28,**

The reference west teaches the method of connecting from a client device to a data network of claim 26, wherein the ordering is specified by an actual

sequential order of the NANs in the user NAN list and the method of connecting from a client device to a data network of claim 26, wherein the ordering is specified by a sequence list which identifies the order for using the NANs in the user NAN list. (col.6, lines 37-64).

**Referring to claim 29,**

The reference west teaches the method of connecting from a client device to a data network of claim 26, the method further comprising the client device determining which NAN from the user NAN list to use next using an algorithm received from. an online service provider server system. (Fig.2a-Fig. 2c, col. 5, lines 57-67 and col.6, lines 1-58).

**Referring to claim 30,**

The reference West teaches the server system for controlling a connection between a user's client device (Fig.1, element 100) and a data network (Fig.4, element 340, LAN), wherein the user's client device attempts connection to the data network using network access numbers in a network access number (NAN) list comprising plural NANs, the server system comprising

first memory storing an available NAN list of NANs available for the client device (Fig.1, element 100) to connect to the data network(Fig.4, element 340, LAN),, wherein. the user NAN list comprises a subset of the available NAN list (col.3, lines 35-45, Fig.4, element 334)

second memory storing connection information about connecting from the NANs in the available NAN list to the data network(Fig.1, element 140, corporate communication system incorporating management server, Fig.4, element 334

and (col. 3, lines 35-45, Fig.4, element 334, col.3, lines 5-7, “the set of access paths for communicating” (connection information)).

computer program code for connecting to the user's client device (Fig.1, element 100)

computer program code for setting the NANs in the user NAN list based upon the available NAN list (col.3, lines 1-4)

computer program code for setting an order for selecting the NANs in the user NAN list based upon the connection information, wherein the order is set outside of the user's control (col.2, lines 58-63, “set of access paths” (connection information)).

computer program code disconnecting from the client device. (Fig.1, element 100 and Fig.1, element 140, corporate communication system incorporating management server, Fig.4, element 334). The reference fails to teach the server as being the online service provider server. The reference Dieterman teaches the invention that involves the automatic determination and setting of preferred service provider telephone access numbers and client configurations when the client connects to the service provider. Preferred access numbers can be determined on the bases of geographic location, POP usage charge (cost), and residual connection capacity (performance) (page 2, [0018]).

Therefore, it would have been obvious for one in ordinary skill in the art at the time the invention was made to apply and practice the system of West into the system of Dieterman such that the same information is provided to the users of Dieterman's online service provider as it is being provided to the users of the

West's system. It provides the solution to the problem stated by West "as a user of a remote typically has a choice of multiple access methods and telephone numbers using which the user can connect his remote computer to a local computer or a local area network. The remote user often user faces several problems. These problems include first knowing what numbers and access methods the user has a choice of, and knowing the cost of using those numbers and access methods. This first problem is exasperated by a large number of available access points, changes of access telephone numbers, changes in telephone and network access rates, and changes in quality of service provided by various service providers. Distributing, storing, and searching a comprehensive directory of access numbers and associated costs would, in general, be prohibitive on remote computers with limited storage and computation capacity, such as portable computers typically often used by mobile workers. (Abstract).

**Referring to claim 31,**

The reference West teaches a server system for controlling a connection between a user's client device and a data network of claim 30 wherein the server system associates ranking information with at least one NAN in the user NAN list. (col.3, lines 55-58, col. 6, lines 44-47). The reference fails to teach the server as being the online service provider server. The reference Dieterman teaches the invention that involves the automatic determination and setting of preferred service provider telephone access numbers and client configurations when the client connects to the service provider. Preferred access numbers can be

determined on the bases of geographic location, POP usage charge (cost), and residual connection capacity (performance) (page 2, [0018]). Therefore, it would have been obvious for one in ordinary skill in the art at the time the invention was made to apply and practice the system of West into the system of Dieterman such that the same information is provided to the users of Dieterman's online service provider as it is being provided to the users of the West's system. It provides the solution to the problem stated by West "as a user of a remote typically has a choice of multiple access methods and telephone numbers using which the user can connect his remote computer to a local computer or a local area network. The remote user often user faces several problems. These problems include first knowing what numbers and access methods the user has a choice of, and knowing the cost of using those numbers and access methods. This first problem is exasperated by a large number of available access points, changes of access telephone numbers, changes in telephone and network access rates, and changes in quality of service provided by various service providers. Distributing, storing, and searching a comprehensive directory of access numbers and associated costs would, in general, be prohibitive on remote computers with limited storage and computation capacity, such as portable computers typically often used by mobile workers. (Abstract).

**Referring to claim 32,**

The reference West teaches the server system for controlling a connection between a user's client device (Fig.1, element 100) and a data network (Fig.3, element 340, "LAN") of claim 30 wherein

the NANs are for providing the client device (col.2, lines 31-36) with a connection to the data network (Fig.3, element 340, "LAN") through plural back end networks (Fig.3, element 140)

each NAN is associated with a one of plural back end providers, each back end network is associated with one of the back end providers (Fig.3, elements 140 and 340)

the connection information includes a cost from the back end provider for the client device to utilize the back end network of the back end provider (col.2, lines 31-36)

the back end providers permit a connection through their back end networks to the client device under the authorization of the server system. (Fig. 3, element 334, "management Server", element 330) The reference fails to teach the server as being the online service provider server. The reference Dieterman teaches the invention that involves the automatic determination and setting of preferred service provider telephone access numbers and client configurations when the client connects to the service provider. Preferred access numbers can be determined on the bases of geographic location, POP usage charge (cost), and residual connection capacity (performance) (page 2, [0018]). Therefore, it would have been obvious for one in ordinary skill in the art at the time the invention was made to apply and practice the system of West into the system of Dieterman such that the same information is provided to the users of Dieterman's online service provider as it is being provided to the users of the West's system. It provides the solution to the problem stated by West "as a user of a remote

typically has a choice of multiple access methods and telephone numbers using which the user can connect his remote computer to a local computer or a local area network. The remote user often user faces several problems. These problems include first knowing what numbers and access methods the user has a choice of, and knowing the cost of using those numbers and access methods. This first problem is exasperated by a large number of available access points, changes of access telephone numbers, changes in telephone and network access rates, and changes in quality of service provided by various service providers. Distributing, storing, and searching a comprehensive directory of access numbers and associated costs would, in general, be prohibitive on remote computers with limited storage and computation capacity, such as portable computers typically often used by mobile workers. (Abstract).

**Referring to claim 33,**

The reference West teaches a client device (Fig.1, element 100) for connecting to a data network (Fig. 3, element 340, "LAN) under control of a server (Fig.1, element 140, corporate communication system incorporating management server, Fig.4, element 334), wherein the connection from the client device to the data network comprises a front end portion and a back end portion, the front end portion comprising a first connection from the client device to a public switch(Fig.3, connection between modem 310 and PSTN 120), and the back end portion comprising a second connection from the public switch to a point of presence under control of one of plural back end providers (Fig.3, connection between and POP) plus a third connection from the point of presence to the data

network( Fig.3, connection between POP and corporate communication system LAN), wherein authorization of the back end portion is by the server system (Fig. 3, element 334, "management Server", element 330), the client device comprising

computer program code for storing a user network access number (NAN) list in the client device (Fig.5, element 552, "local database"), wherein the NAN is associated with one of the back end providers (Fig.3, elements 140 and 340)

computer program code for sequentially dialing NANs from the user NAN list based upon an order of selection until the front end portion is established and the back end portion is authorized, wherein the order is based upon the cost of the back end portion and historical quality of connection statistics for the back end. (col.6, lines 43-48). The reference fails to teach the server as being the online service provider server. The reference Dieterman teaches the invention that involves the automatic determination and setting of preferred service provider telephone access numbers and client configurations when the client connects to the service provider. Preferred access numbers can be determined on the bases of geographic location, POP usage charge (cost), and residual connection capacity (performance) (page 2, [0018]). Therefore, it would have been obvious for one in ordinary skill in the art at the time the invention was made to apply and practice the system of West into the system of Dieterman such that the same information is provided to the users of Dieterman's online service provider as it is being provided to the users of the West's system. It provides the solution to the problem stated by West "as a user of a remote

typically has a choice of multiple access methods and telephone numbers using which the user can connect his remote computer to a local computer or a local area network. The remote user often user faces several problems. These problems include first knowing what numbers and access methods the user has a choice of, and knowing the cost of using those numbers and access methods. This first problem is exasperated by a large number of available access points, changes of access telephone numbers, changes in telephone and network access rates, and changes in quality of service provided by various service providers. Distributing, storing, and searching a comprehensive directory of access numbers and associated costs would, in general, be prohibitive on remote computers with limited storage and computation capacity, such as portable computers typically often used by mobile workers. (Abstract).

**Referring to claims 34 and 35,**

The reference West teaches the client device for connecting to a data network under control of a server of claim 33 wherein the order is specified by an actual sequential order of the NANs in the user NAN list and the client device for connecting to a data network under control of a server of claim 33 wherein the order is specified by a sequence list which identifies the order for using the NANs in the user NAN list. (col.6, lines 37-64). The reference fails to teach the server as being the online service provider server. The reference Dieterman teaches the invention that involves the automatic determination and setting of preferred service provider telephone access numbers and client configurations when the client connects to the service provider. Preferred access numbers can be

determined on the bases of geographic location, POP usage charge (cost), and residual connection capacity (performance) (page 2, [0018]). Therefore, it would have been obvious for one in ordinary skill in the art at the time the invention was made to apply and practice the system of West into the system of Dieterman such that the same information is provided to the users of Dieterman's online service provider as it is being provided to the users of the West's system. It provides the solution to the problem stated by West "as a user of a remote typically has a choice of multiple access methods and telephone numbers using which the user can connect his remote computer to a local computer or a local area network. The remote user often user faces several problems. These problems include first knowing what numbers and access methods the user has a choice of, and knowing the cost of using those numbers and access methods. This first problem is exasperated by a large number of available access points, changes of access telephone numbers, changes in telephone and network access rates, and changes in quality of service provided by various service providers. Distributing, storing, and searching a comprehensive directory of access numbers and associated costs would, in general, be prohibitive on remote computers with limited storage and computation capacity, such as portable computers typically often used by mobile workers. (Abstract).

**Referring to claim 36,**

36. The client device for connecting to a data network under control of an online service provider server of claim 33 wherein the client device determines which NAN from the user NAN list to use next using an algorithm received from an

online service provider server system. (col.6, lines 37-67 and col.7, lines 1-5).

The reference fails to teach the server as being the online service provider server. The reference Dieterman teaches the invention that involves the automatic determination and setting of preferred service provider telephone access numbers and client configurations when the client connects to the service provider. Preferred access numbers can be determined on the bases of geographic location, POP usage charge (cost), and residual connection capacity (performance) (page 2, [0018]). Therefore, it would have been obvious for one in ordinary skill in the art at the time the invention was made to apply and practice the system of West into the system of Dieterman such that the same information is provided to the users of Dieterman's online service provider as it is being provided to the users of the West's system. It provides the solution to the problem stated by West "as a user of a remote typically has a choice of multiple access methods and telephone numbers using which the user can connect his remote computer to a local computer or a local area network. The remote user often user faces several problems. These problems include first knowing what numbers and access methods the user has a choice of, and knowing the cost of using those numbers and access methods. This first problem is exasperated by a large number of available access points, changes of access telephone numbers, changes in telephone and network access rates, and changes in quality of service provided by various service providers. Distributing, storing, and searching a comprehensive directory of access numbers and associated costs would, in general, be prohibitive on remote computers with limited storage and

computation capacity, such as portable computers typically often used by mobile workers. (Abstract).

**Referring to claim 37,**

Claim 37 is a claim to a computer program product comprising a computer usable medium having computer readable program code embodied therein for carrying out the steps of method of claim 26. Therefore claim 37 is rejected for the reasons set forth for the claim 26.

**Referring to claims 38 and 39,**

Claims 38 and 39 are claims to a computer program product comprising a computer usable medium having computer readable program code embodied therein for carrying out the steps of method of claims 27 and 28. Therefore Claims 38 and 39 are rejected for the reasons set forth for the claims 27 and 28.

**Referring to claim 40,**

Claim 40 is a claim to a computer program product comprising a computer usable medium having computer readable program code embodied therein for carrying out the steps of method of claim 29. Therefore claim 40 is rejected for the reasons set forth for the claim 29.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory

action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok B. Patel whose telephone number is (703) 305-2655. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abp



JOHN FOLLANSBEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100